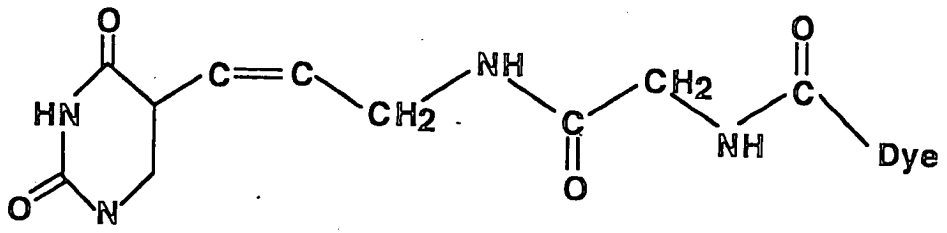
Diglycinyl linker



Tetraglycinyl linker

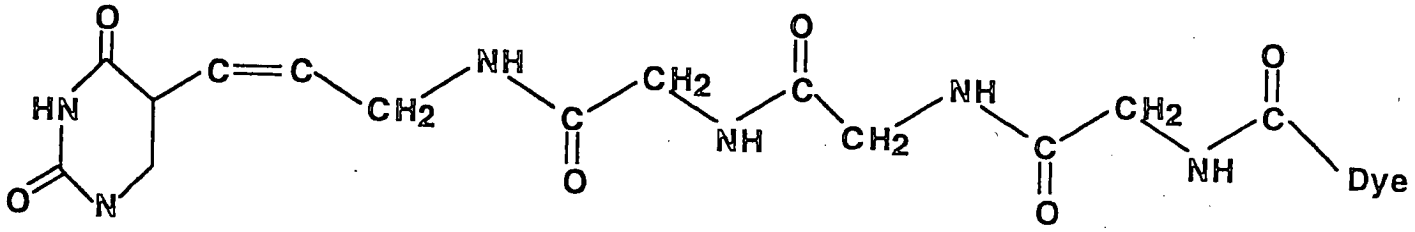
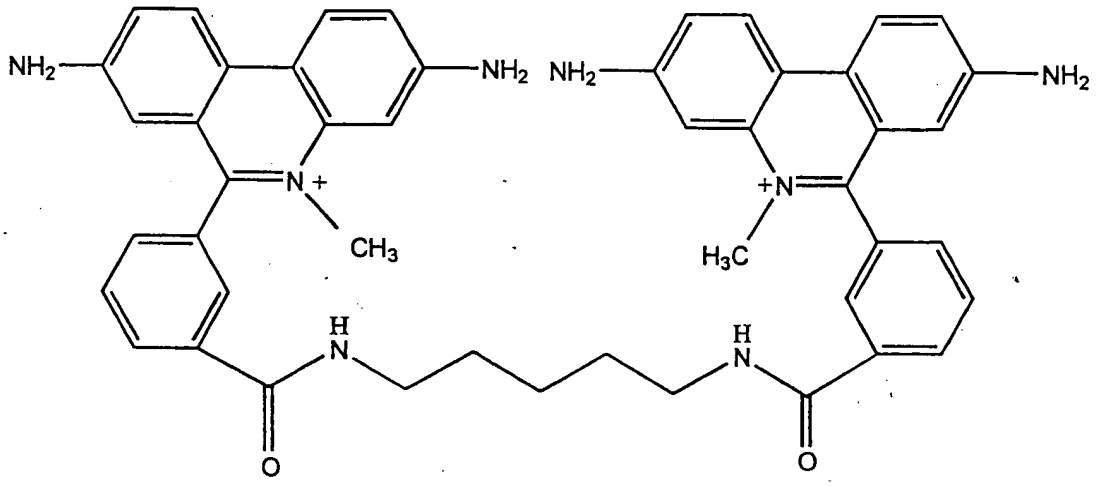
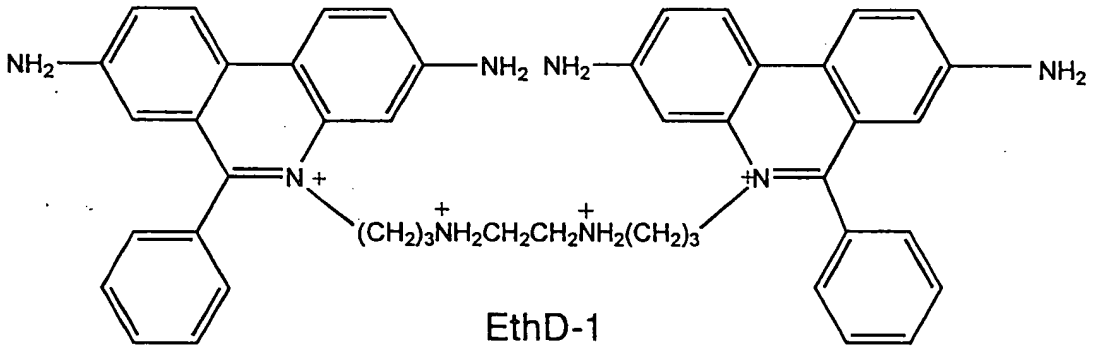


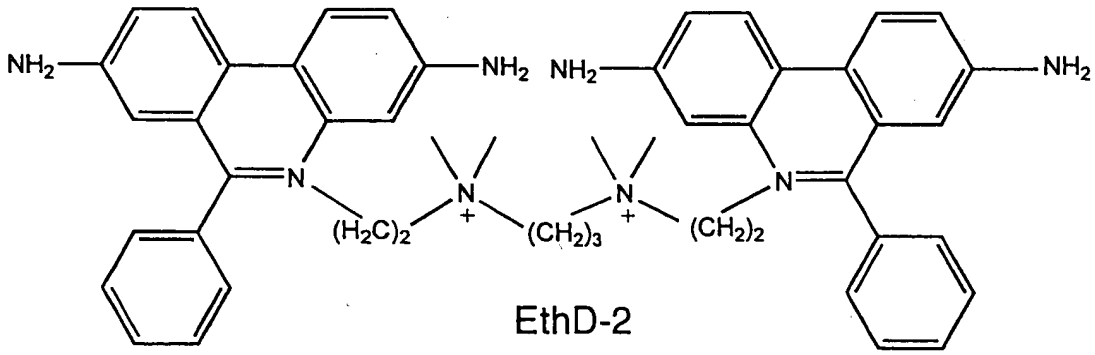
Figure 1



meta-EthD



EthD-1



EthD-2

Figure 2

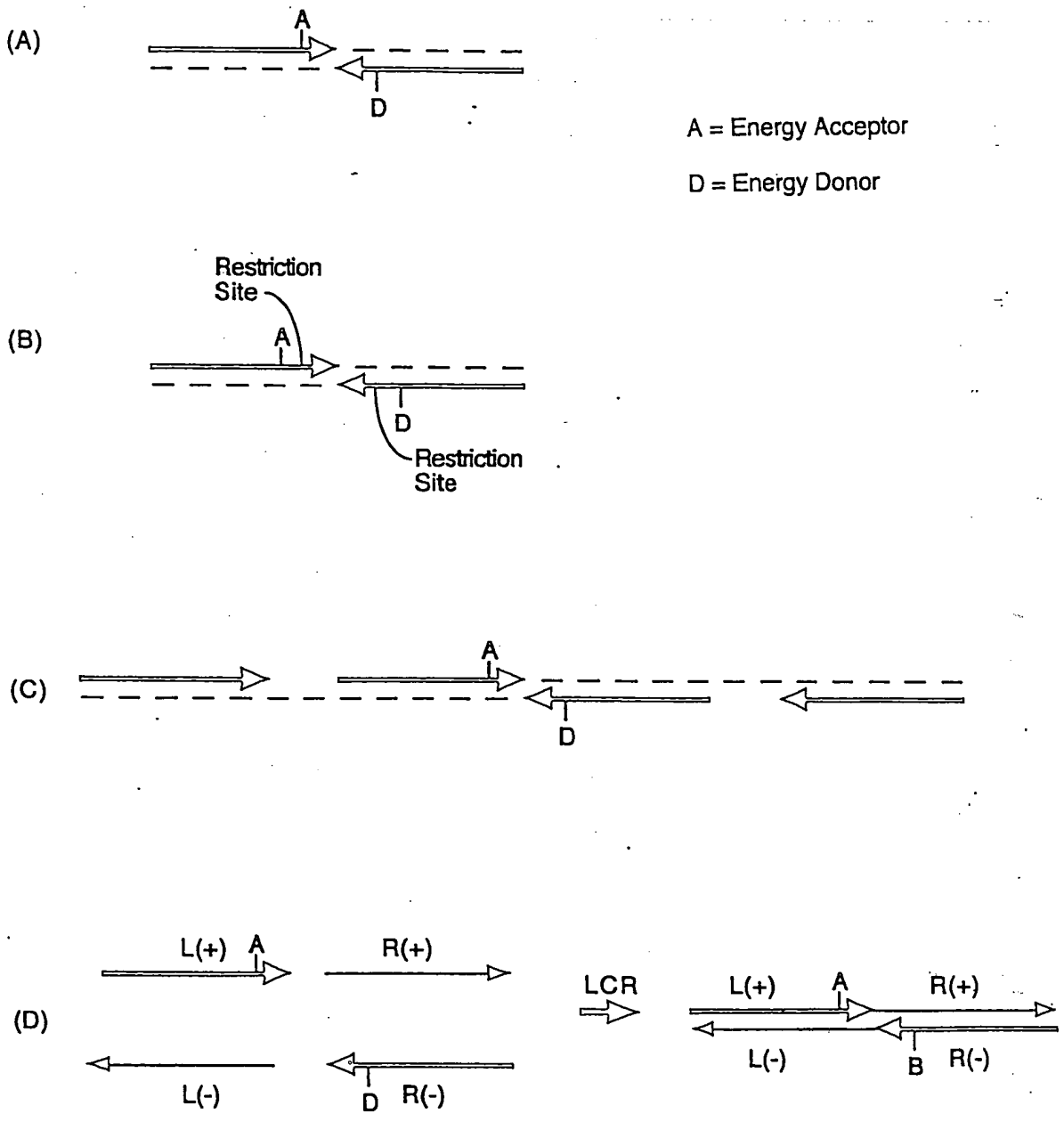
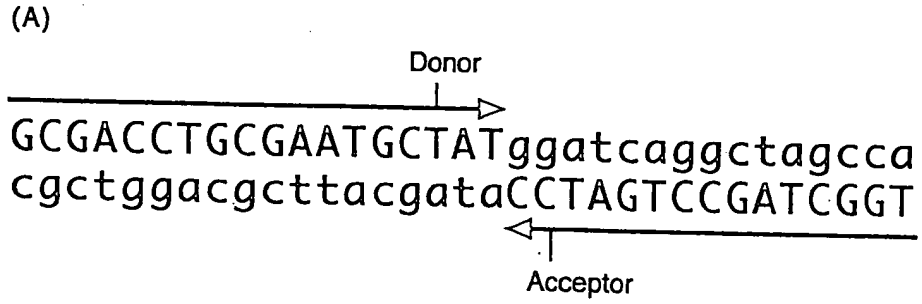

(A)
A
D
A = Energy Acceptor
D = Energy Donor
(B)
Restriction Site
A
D
Restriction Site
(C)
A
D
(D)
L(+)
A
R(+)
L(-)
D
R(-)
LCR
L(+)
A
R(+)
L(-)
B
R(-)

Figure 3

Target Sequence

GCGACCTGCGAATGCTATGGATCAGGCTAGCCA

CGCTGGACGCTTACGATACCTAGTCCGATCGGT



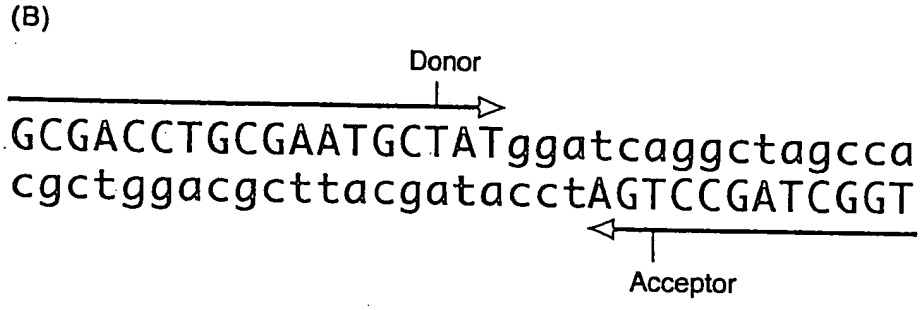
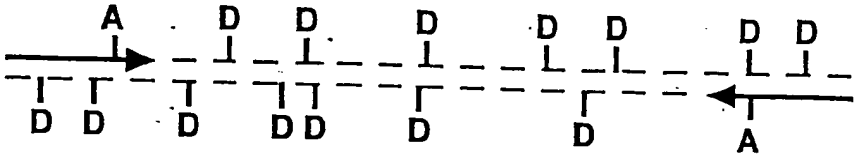
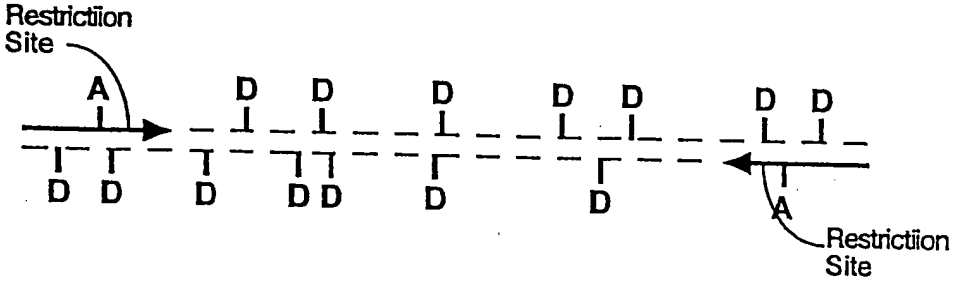


Figure 4

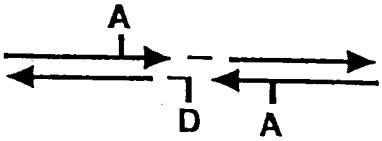
(A) PCR



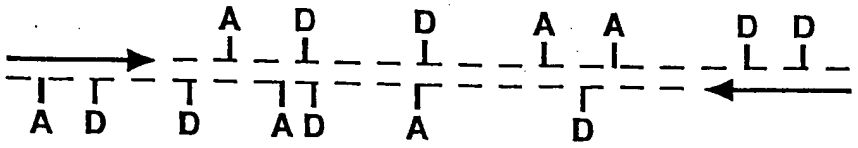
(B) SDA



(C) GAP-LCR



(D) PCR

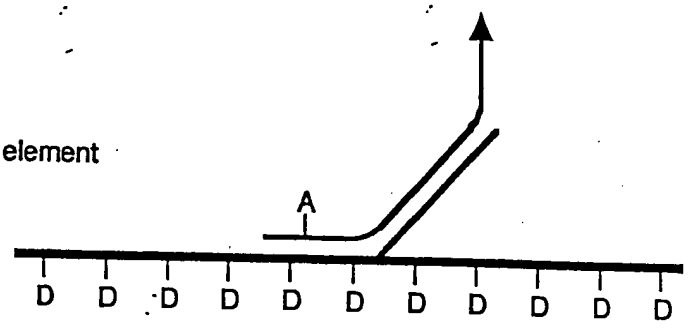


A = Energy Acceptor

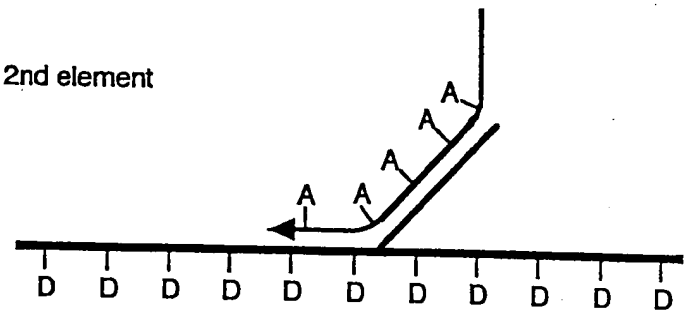
D = Energy Donor

Figure 5

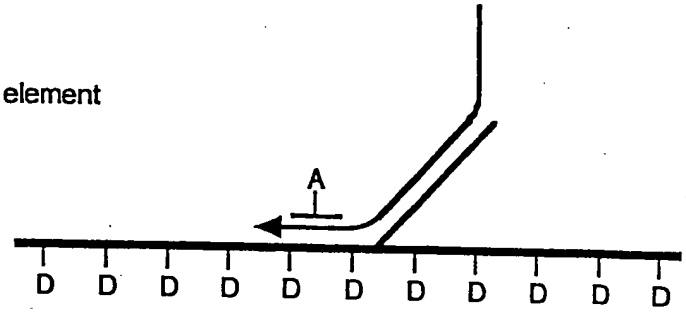
(A) Primer with 2nd element



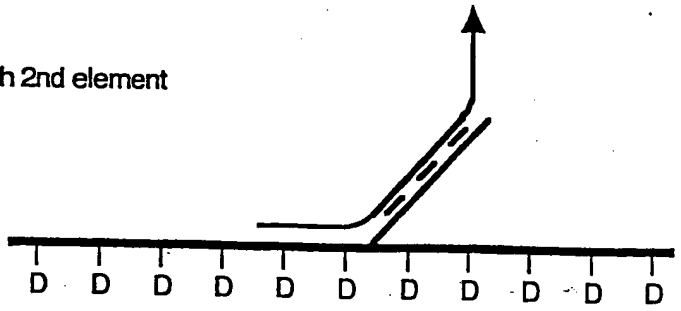
(B) Nucleotide with 2nd element



(B) Probe with 2nd element



(B) Intercalators with 2nd element



D = Energy Donor
A = Energy Acceptor

Figure 6

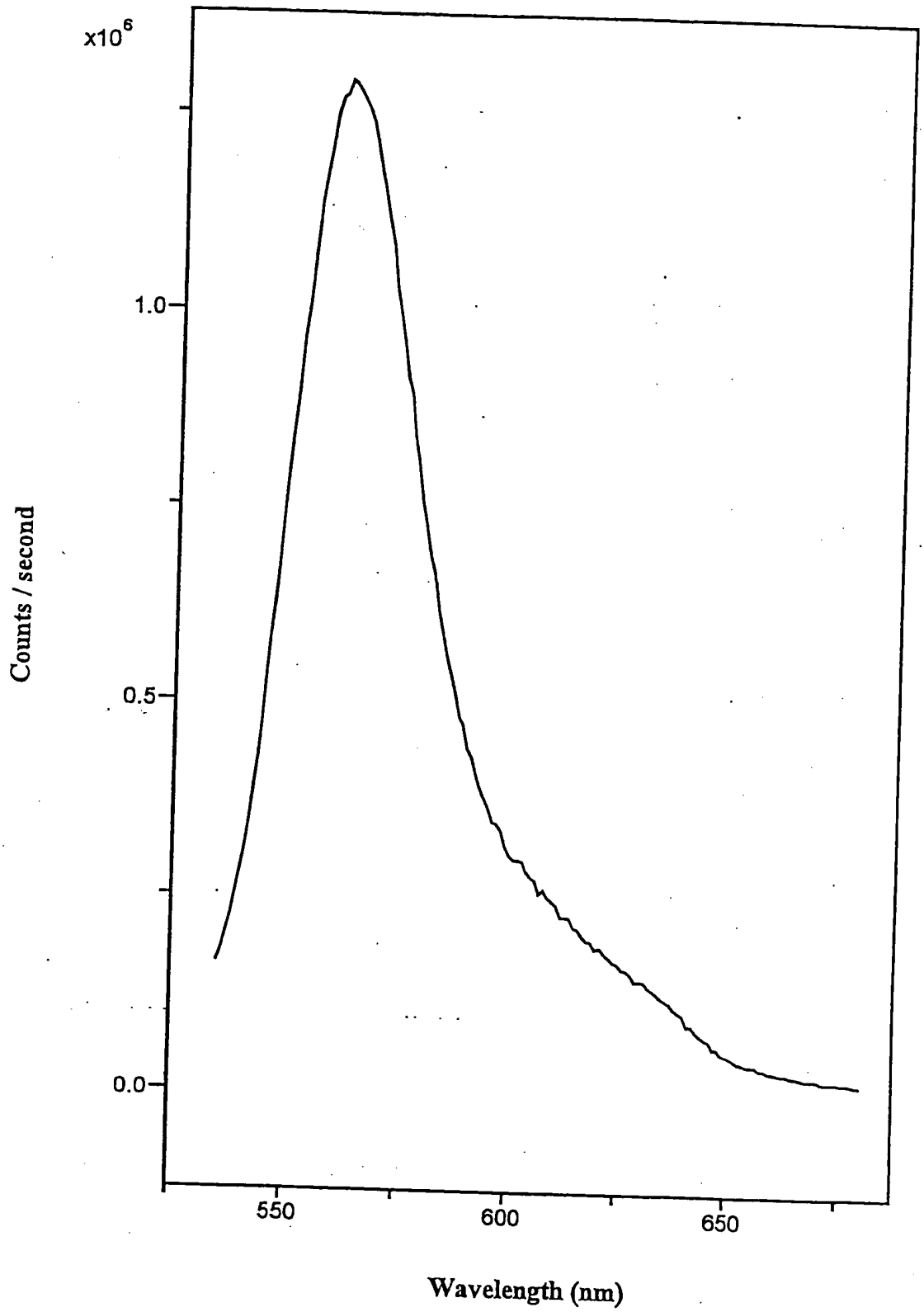


Figure 7

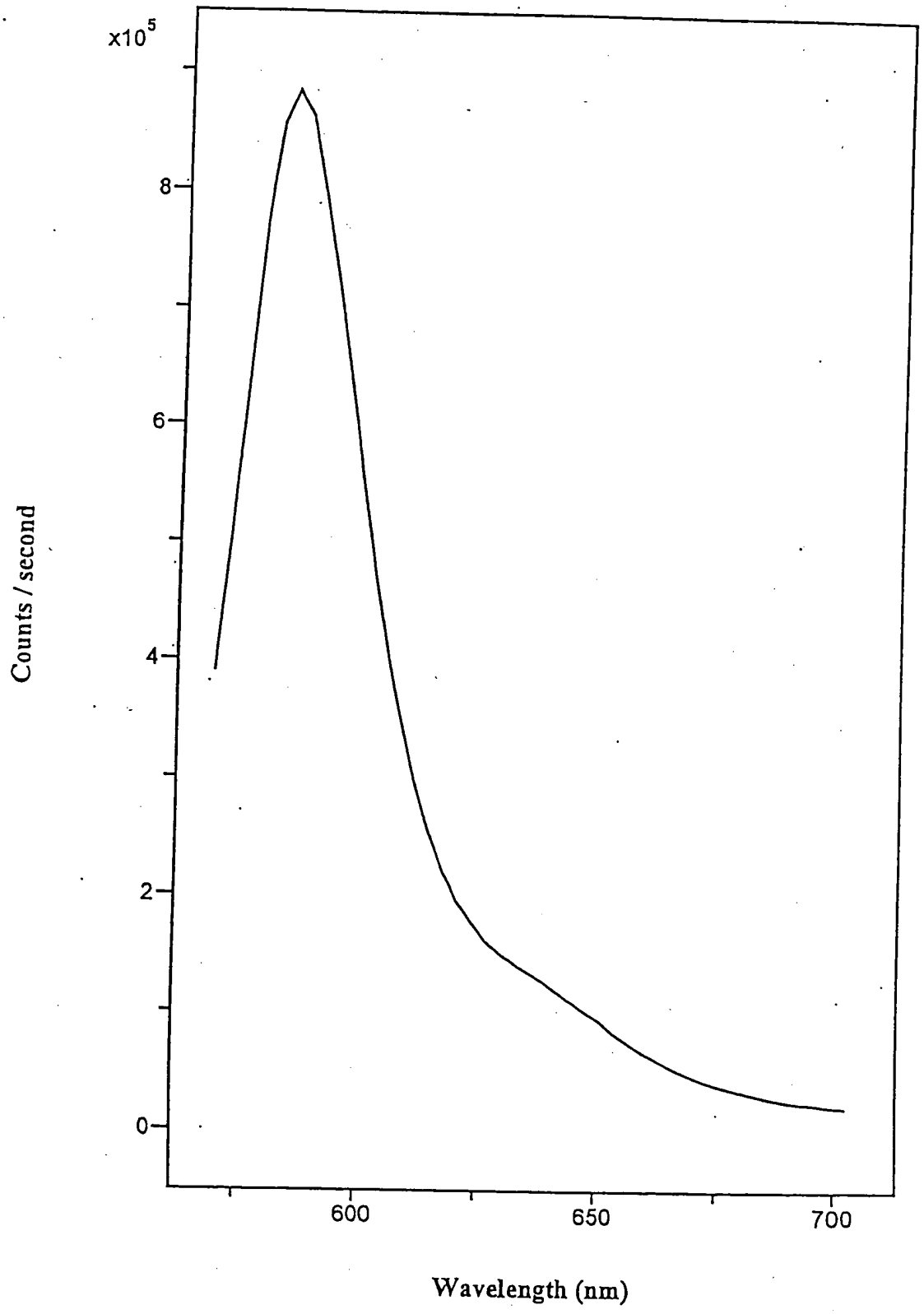


Figure 8

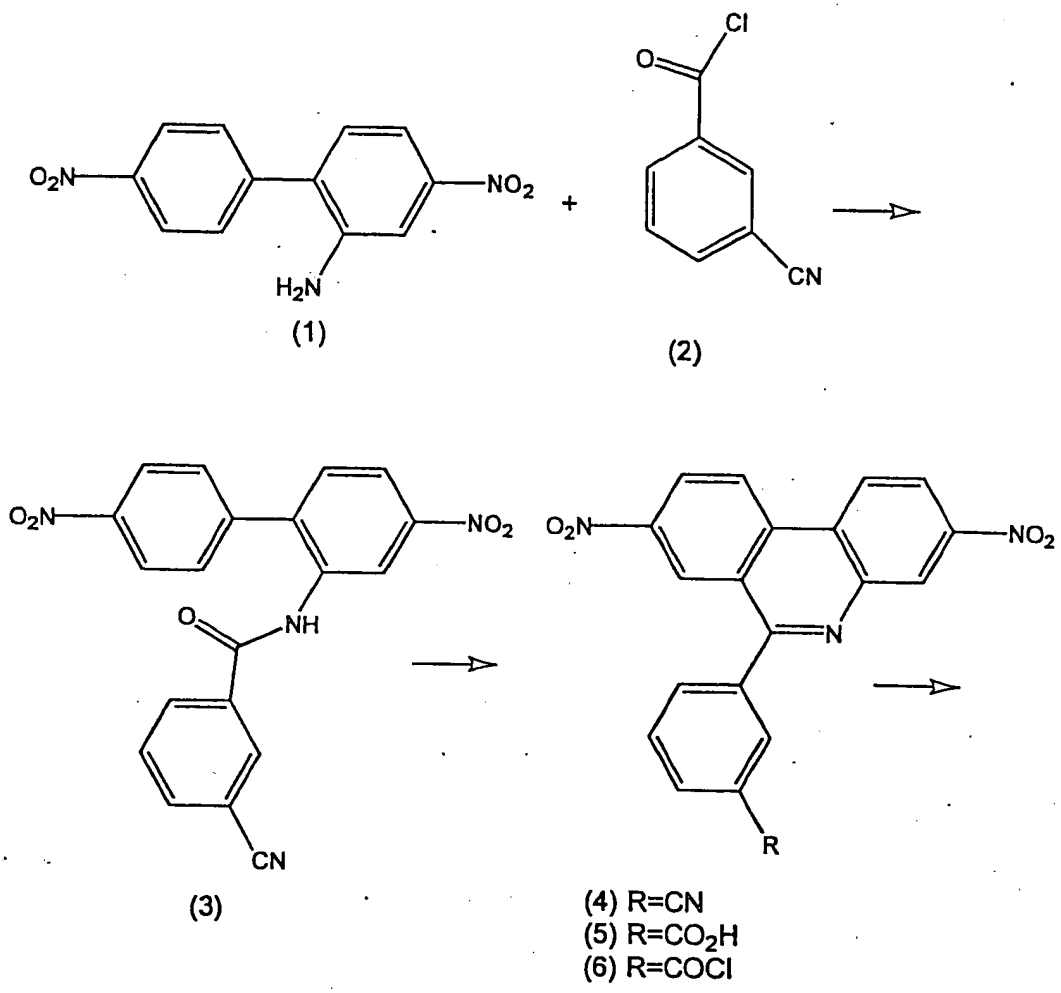
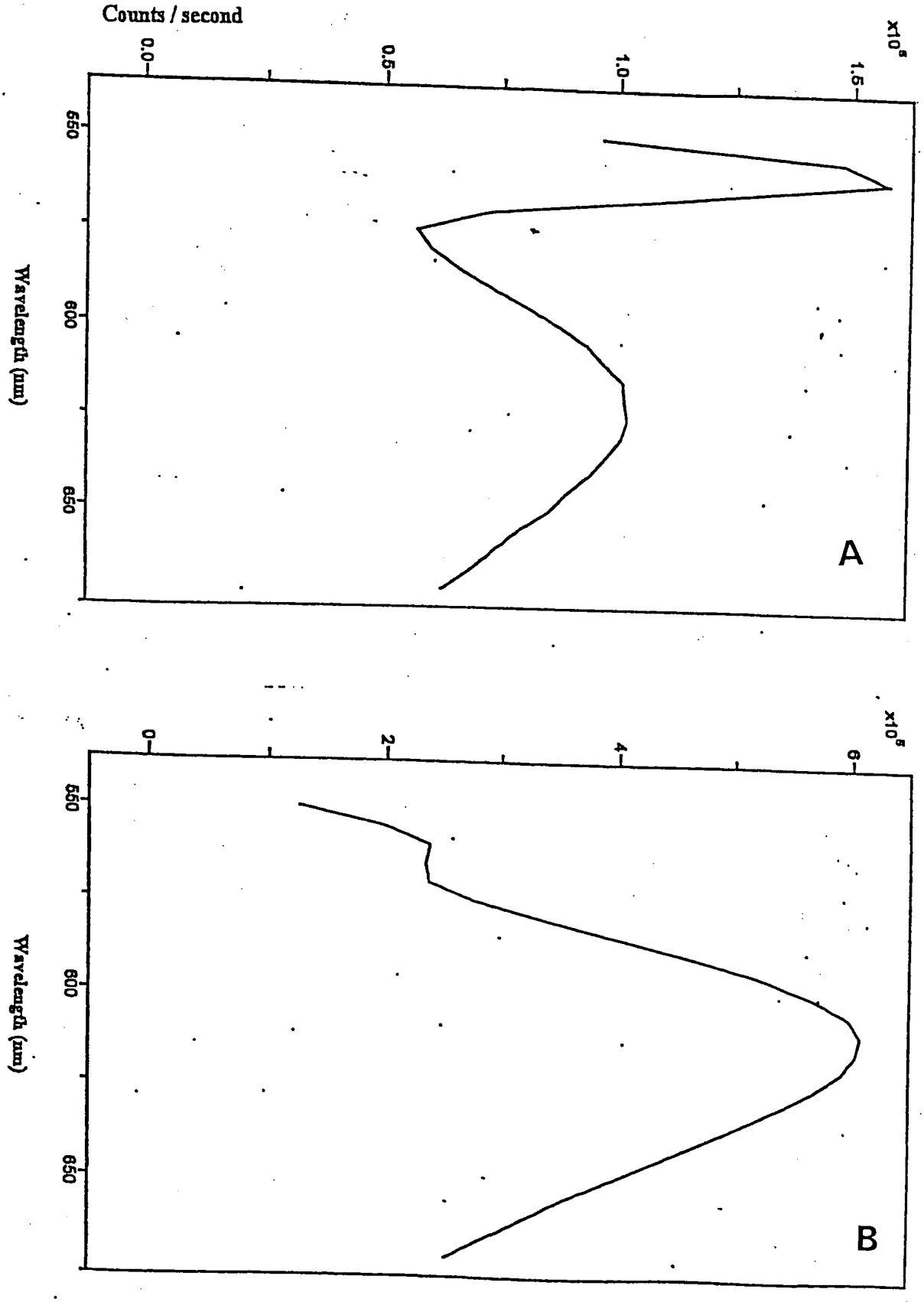
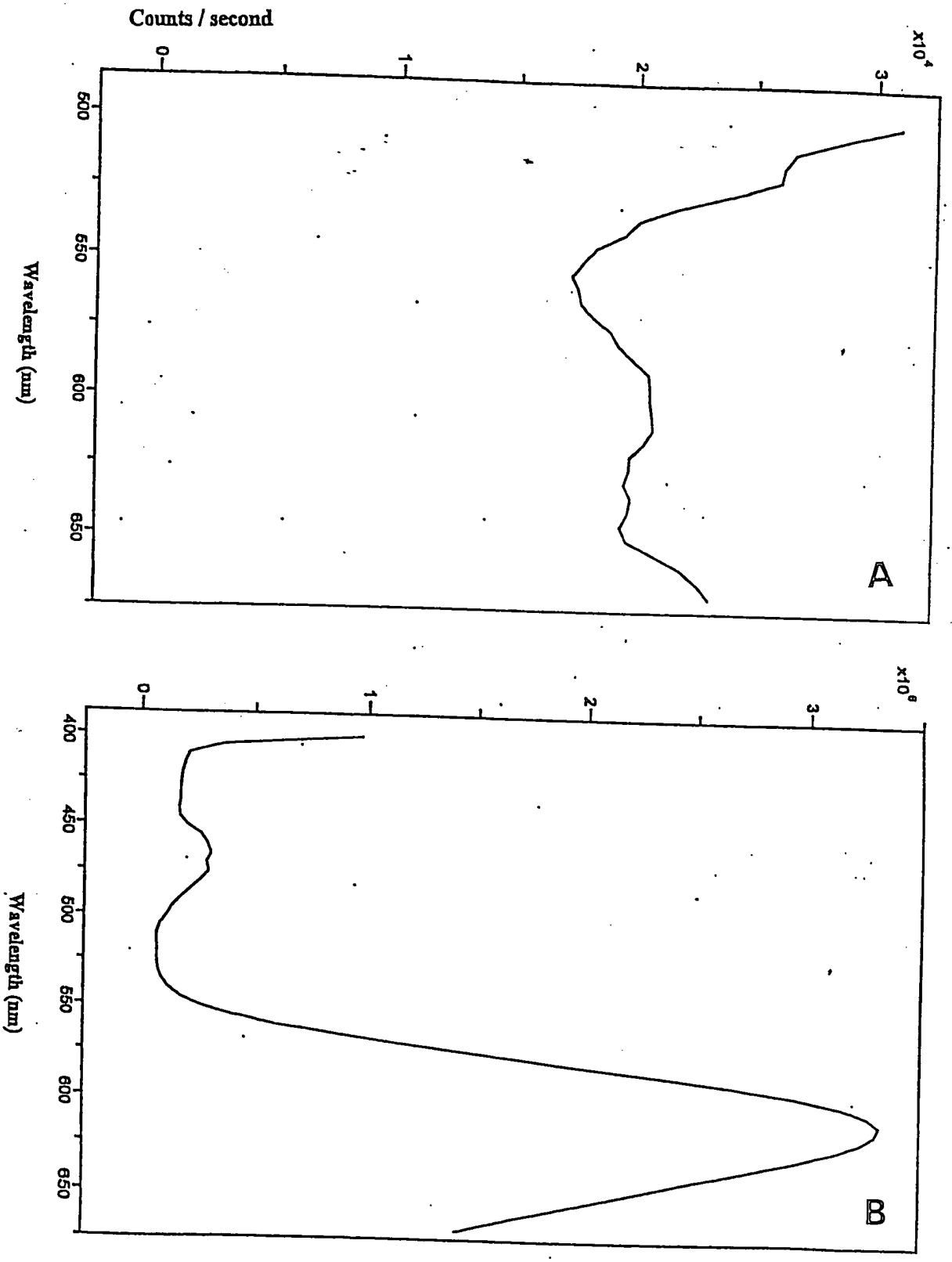

O2N
NO2
H2N
(1)
Cl
O
CN
(2)
NH
(3)
R
(4) R=CN
(5) R=CO2H
(6) R=COCl
R'
X
CH3
H3C
(7) R'=NO2, X=Br-
(8) R'=NH2, X=Cl-

Figure 9



Illumination at 472 nM
Figure 10



Illumination at 350 nM

Figure 11

HIV Anti-sense Amplicon

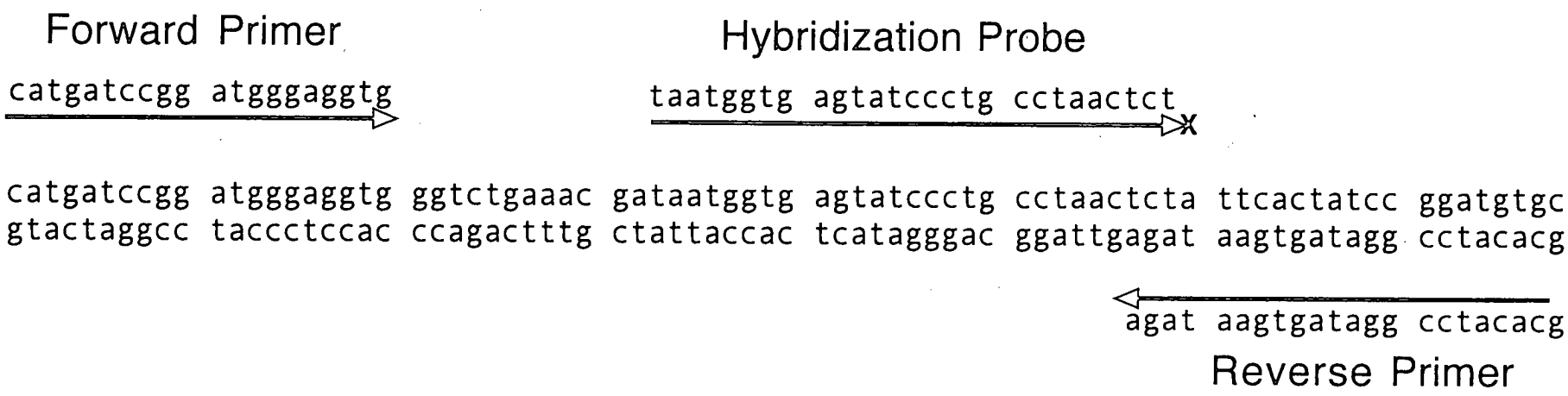
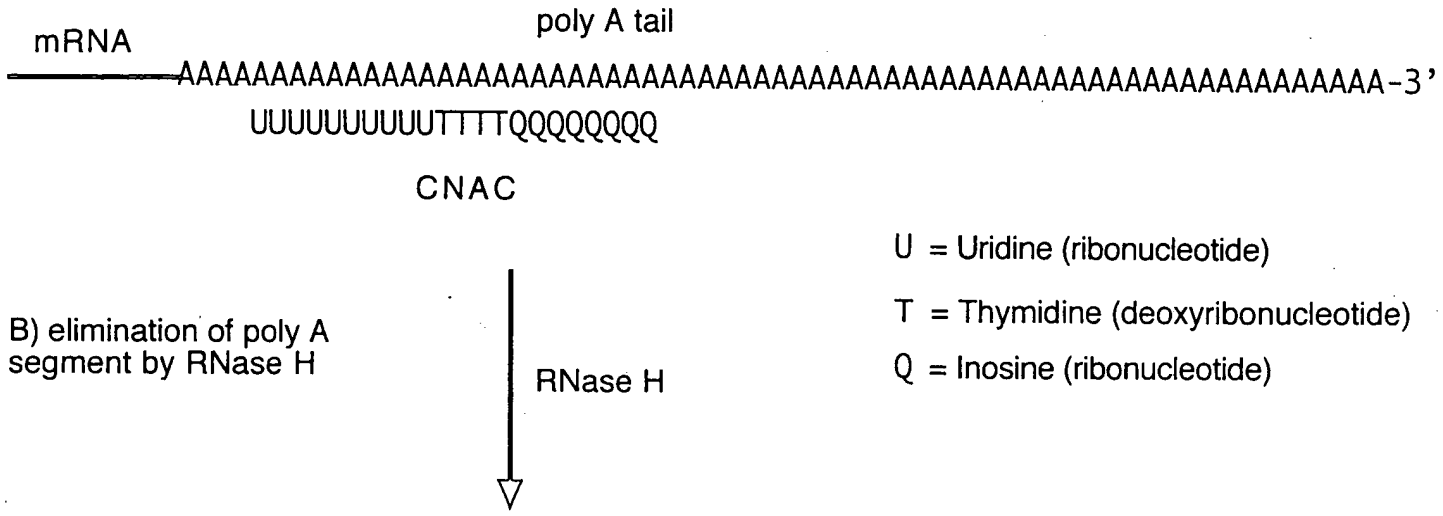


Figure 12

A) Binding of CNAC to poly A tail

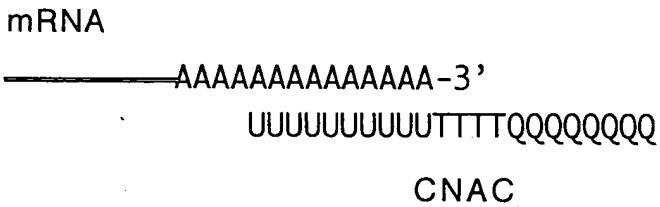


U = Uridine (ribonucleotide)

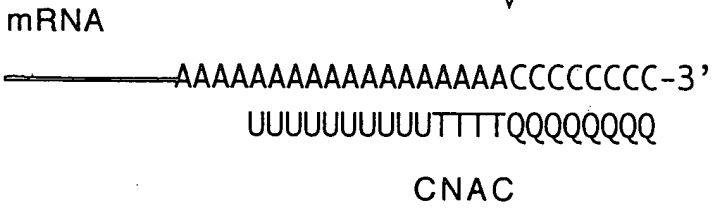
T = Thymidine (deoxyribonucleotide)

Q = Inosine (ribonucleotide)

B) elimination of poly A segment by RNase H



C) Incorporation of primer binding site by template dependent extension of analyte



D) Removal of CNAC and binding of primer with promoter sequence

Figure 13

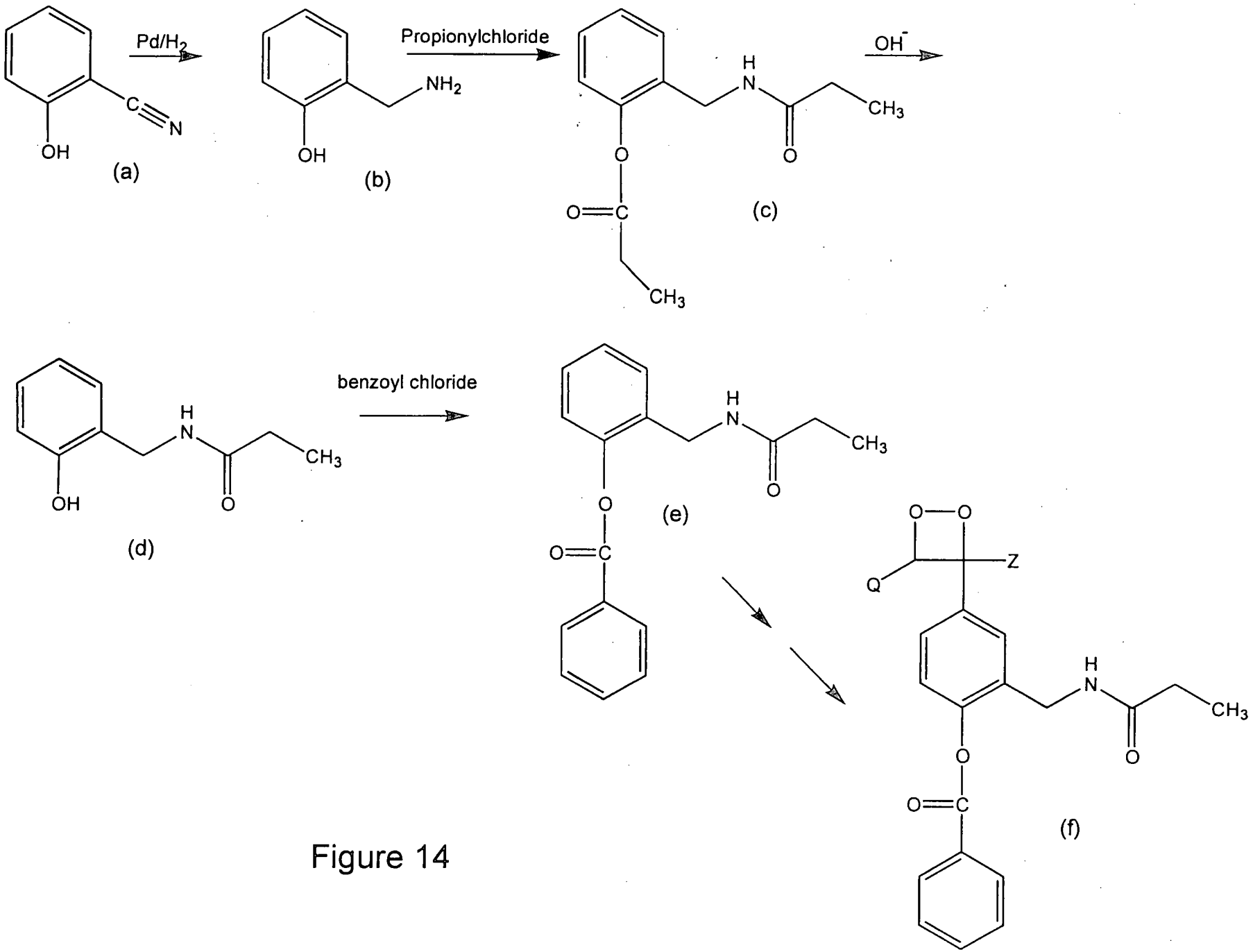


Figure 14

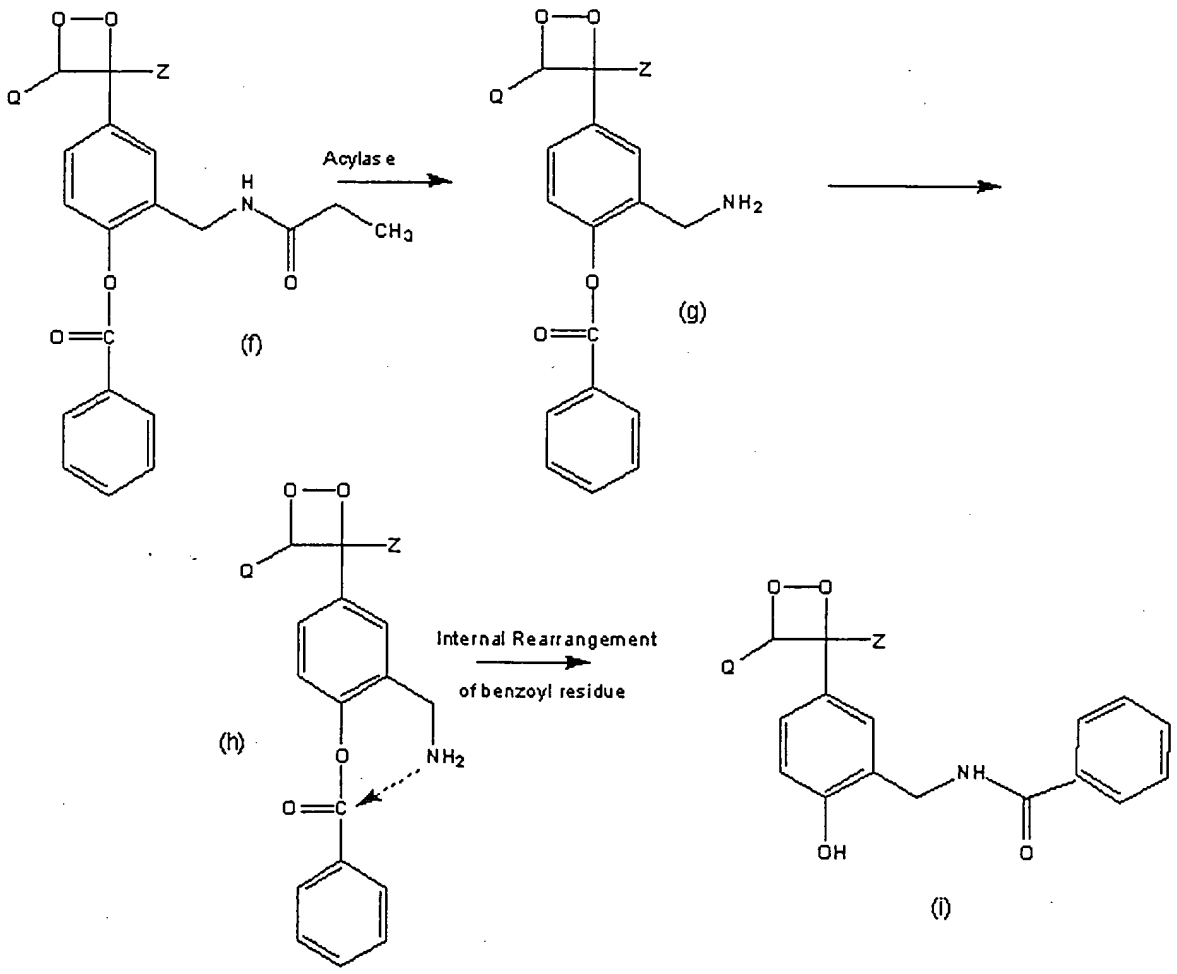


Figure 15